

**Effects of Increased Frequency of Oral Care in Mechanically Ventilated Patients:  
Quality Improvement**

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## **Effects of Increased Frequency of Oral Care in Mechanically Ventilated Patients: Quality Improvement**

Quality Improvement is essential to the safety of healthcare systems. It is a system that monitors data continuously to assess patient care outcomes (QSEN Institute, 2020). Categories such as knowledge, skills, and attitude to improve the quality of the health care system by QSEN (QSEN Institute, 2020). In the study, they use skills such as seeking information to improve the care outcome for ventilated patients. In addition, the study also describes approaches for changing the care process and using quality measures to understand the performance of the study (QSEN Institute, 2020). The topic selected to discuss in this paper is the effects of a new oral care program on preventing ventilator-associated pneumonia (VAP) vs. the effect of traditional oral care on preventing VAP. VAP results in 30%-70% mortality in mechanically ventilated patients and extends hospital stays by 6-7 days (Yazdannik et al., 2018).

### **Article Summary**

#### **Introduction**

The article chooses two different methods of performing oral care and identifies if there are any differences in the method's ability to prevent VAP. The methods differ in the frequency and the method of performing oral care. This study identifies if one method is preferred over the other to prevent VAP. After analyzing the study results, the researchers found no significant differences in the methods and abilities to prevent VAP. This study shows that though oral in ventilated patients is very important, the difference in the method of oral care may not be as significant as the act of performing oral (Yazdannik et al., 2018).

#### **Overview**

Research in the past has shown that oral care in ventilated patients is efficient in preventing VAP. This research article identifies if the frequency of oral care plays a role in preventing VAP. Identifying if an increase in oral care frequency would positively prevent VAP in patients is crucial. It is identifying if the frequency of oral care in ventilated patients would prevent more cases of VAP and improve the quality and safety of the health care system (Yazdannik et al., 2018).

### **Quality Improvement**

If quality improvement were to occur, an increase in frequency would help prevent more cases of VAP; this could be a new policy for an Intensive Care Unit (ICU) (Yazdannik et al., 2018). If this change had gone into effect, an increase in oral care supplies would be necessary. In the pre-stage of implementation, the facility implementing this research would need to allocate funds to increase the oral care supply, educate staff members on the change, and train staff members accordingly. Training the nurses in a new skill, such as performing oral care properly, is necessary to prevent VAP. During the intra-stage of implementation, it would be necessary for the hospital to collect data on the changes they made to see if these changes have decreased the amount of VAP they see in patients. Finally, in the post-implementation stage, the data they collected should be reviewed to ensure the change positively affected the facility.

If these changes went into effect, oral care supplies would need to increase. This increase in supplies could become a financial strain on the hospital. The cost of this would depend on how many ventilated patients the facility can care for at one time. Which would have a very positive effect on patient satisfaction as well as increase patient safety. If the research had shown that the frequency of oral prevented VAP, implementing this would have lowered the chances for

patients to contract VAP, increasing their safety and satisfaction. Implementing this change would increase the responsibility of nurses, which could be stressful for those nurses and decrease nursing satisfaction (Yazdannik et al., 2018). As for nursing safety, this could increase nursing safety by decreasing nursing ratios. For example, since a patient who contracts VAP increases their stay by 6-7 days, this could add patients to the unit that did not need to be there as long. This addition of patients could affect nursing-to-patient ratios (Yazdannik et al., 2018).

### **Application to Nursing**

Applying the information from this paper to the practice of nursing is crucial in preventing intubated patients from contracting VAP. Training nurses on the best practice of oral care, such as brushing the teeth, gums, and tongue of intubated patients twice a day, is crucial in preventing VAP. Keeping a patient's mouth clean and moisturized helps to prevent bacteria from staying in the mouth (Sarangi et al., 2021). If bacteria are in the mouth, a patient can aspirate on it, leading to VAP. Therefore, performing oral care is crucial.

### **Practice**

The best nursing practice to address the concern of VAP is performing oral care on intubated patients. The best practice of oral care is brushing patients' teeth, gums, and tongue at least twice a day. Brushing the patients' teeth, gums, and tongue twice daily helps remove any bacteria that can be aspirated, leading to VAP (Sarangi et al., 2021). In addition to brushing the patients' teeth twice daily, moistening oral mucosa and lips should occur every 2 hours (Sarangi et al., 2021). Moistening the patient's oral mucosa and lips can help to prevent them from drying out. Dry oral mucosa and lips can hold *Streptococcus pneumoniae*, leading to VAP (Sarangi et al.,

2021). Performing oral care on intubated patients can prevent patients from aspirating on dry oral colonization, leading to VAP (Sarangi et al., 2021).

### **Education**

The current guidelines for educating staff about oral care on intubated patients vary among hospitals. Oral care is essential to prevent bacteria growth in the mouth. Therefore, oral care is a standard practice in all hospitals. When a hospital educates its staff on the protocol, it is common for them to complete a training lab where they discuss the protocol and teach the nurses how to perform it (Sarangi et al., 2021). Each hospital will likely explain its oral care protocol to its employees and demonstrate how to perform oral care.

### **Research**

As the research on oral care progresses, some of the priorities should be identifying the proper frequency and technique of oral care to prevent VAP. Identifying the best frequency for oral care will help hospitals standardize the best care for patients in preventing VAP. Identifying a specific technique for preventing oral care will also help hospitals standardize procedures and give patients the best care to prevent VAP (Sarangi et al., 2021). Overall, identifying the best way to perform oral care will help to reduce the number of patients who acquire VAP.

### **Conclusion**

QSEN competencies uphold and guide the quality of care. The categories used by the QSEN competencies include knowledge, skills, and attitude. VAP results in 30%-70% mortality in mechanically ventilated patients and extends hospital stays by 6-7 days (Yazdannik et al.,

2018). Addressing the cause of VAP and making improvements is crucial in preventing more patients from contracting VAP. Brushing the teeth, gums, and tongues of intubated patients prevents the building of bacteria (Sarangi et al., 2021). In addition to adequately brushing the patient's mouth, the nurse should moisturize their oral mucosa and lips every 2 hours (Sarangi et al., 2021). To make the changes needed to prevent VAP, hospitals must take the initiative to train their employees on the proper way and frequency of performing oral care. Further research dealing with the prevention of VAP should focus on finding the proper frequency and technique of oral to prevent VAP (Sarangi et al., 2021). Doing this can standardize oral care among hospitals ensuring that all patients receive equal preventative measures.

## References

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